

OLIVIER MESSIAEN'S "APPEL INTERSTELLIARE": THE INFLUENCE OF
BIRDSONG AND ITS TECHNICAL CHALLENGES ON HORN

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BY
AARON HOERST
PROFESSOR GENE BERGER-ADVISOR

BALL STATE UNIVERSITY

MUNCIE, INDIANA

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ABSTRACT

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STUDENT: Aaron Hoerst

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This paper is a study of Olivier Messiaen's "Appel Interstellaire." Though its original context is as the sixth movement of *Des Canyons aux étoiles . . .*, it is more commonly performed outside *Des Canyons* as a solo movement for recital repertoire. This lack of context can jeopardize the player's rendering of what Messiaen originally intended for the piece. Therefore, it is important to investigate the understanding of the contextual reflection of "Appel Interstellaire" within *Des Canyons*.

Messiaen used his worship of nature and God to create his music. His experience in Catholicism often led him to find divine beauty within music. A large number of his melodies are derived from various birdsongs. In his book, *Langage Communicable*, Messiaen writes of a cryptomusical language in which he can derive rhythm and pitch from a set order of cryptology. These compositional practices and others can make the technical challenges of this piece rather staggering for the player. Messiaen makes full use of the French horn's technical ability to mimic birdsongs by including half-valved trills, large intervallic leaps, and flutter tongue.

This paper is broken up into three sections. The first section gives a brief

introduction into the musicological background of Messiaen. The second section investigates the origin of “Appel Interstellaire” and how it fits into *Des Canyons*. The third section explores important performance issues including an analysis from the perspective of bird-song quotation, ‘langage’ communicable, and returning chromaticism.

Introduction

Olivier Messiaen is most notably known for his piece *Quartet for the End of Time*, completed during his imprisonment within a Nazi POW camp in Germany. A devotedly religious man, his compositional stylings are contrived by his reverence for nature itself. Messiaen traveled across the countryside in search of unique birdsongs to capture, paying special attention to their intervallic leaps and colors of timbre. His journey took him across the United States to Utah, where Bryce Canyon renders its majesty of resonance. Compelled by the vastness of space and time, Messiaen has forever changed the horn repertoire. In his creation of “Appel Interstellaire,” Messiaen musically conveys the absence of God's answers to the anguish of man through the contemplation of silence.

Messiaen was truly a prolific composer. His life span of 83 years has given us tremendously impressive works. Fortunately, Messiaen was surprisingly vocal about his own music. In addition to his explanatory prefaces to his compositions, there are also five important published collections of conversations with the composer.¹ According to Andrew Shenton, these conversations contain a wealth of information about the motivation and processes of Messiaen's compositional practices.² Several other writers compare and contrast Messiaen with other notable composers. Madelein Hsu discovers how the influence of Liszt, Debussy, and Bartók impacted his piano music within her book *Olivier Messiaen the Musical Mediator*.³ Theo Hirsbrunner compares Messiaen

¹ Antoine Goléa, *Rencontres avec Olivier Messiaen* (Paris, Slatkine, 1984).

² Andrew David James Shenton, “The Unspoken Word: Olivier Messiaen’s ‘Language Communicable’” (Ph.D. dissertation, Harvard University, 1998), 7.

³ Madeleine Hsu, *Olivier Messiaen: The Musical Mediator; A Study of the Influence of Liszt, Debussy and*

with two of his predecessors, Ravel and Wagner, and one of his successors, Pierre Boulez. He writes his findings within his book, *Olivier Messiaen: Leben und Werk*.⁴ While these publications dig deeper into Messiaen's subconscious, Almut Rößler has dedicated himself to the interpretation of Messiaen's music. Additionally, there are two somewhat recent editions essay collections in English. The first one is entitled *The Messiaen Companion*, which has eighteen essays on various subjects such as "Color", "Mysticism and Theology," and specific works such as "Des canyons aux étoiles . . .".⁵ In August of 1995, Julian Anderson wrote a review of *The Messiaen Companion* within the *Musical Times*. He explains how "much of the *Messiaen Companion* stays far too close to Messiaen's own view of his music" and that "there are few composers who are harder to write about than Olivier Messiaen."⁶ The second collection is the eleven essays in *Olivier Messiaen and the Language of Mystical Love*. It tends to have a broader range of theoretical analysis outside of the limitations Messiaen presents us within his writings.⁷

Much of the scholarly research makes an overall distinction between what Messiaen conveys about himself, and the theoretical analysis of his music by others. For the purpose of this creative project, I will reference more of what Messiaen conveys for himself. Messiaen wrote in abundance about his compositional processes and this seems more relevant in deciphering his methodology in the creation of "Appel Interstellaire."

Bartók (London: Associated University Presses, 1996).

⁴ Theo Hirsbrunner, *Olivier Messiaen; Leben und Werk* (Laaber; Laaber-Verlag, 1988).

⁵ *Ibid.*, 12.

⁶ Julian Anderson, "Writ Small," *The Musical Times* 136 (1995): 434.

⁷ Shenton, "The Unspoken Word," 13.

The Commission by Alice Tully and The Structure of *Des Canyons aux étoiles* . . .

Messiaen was a professor at the Paris Conservatoire between the years of 1941-1978. Some of his most celebrated students were taught there, including Karlheinz Stockhausen, Pierre Boulez, and Iannis Xenakis. His former student, François Jean-Pierre Guèzec, died of a heart attack on March 9th, 1971, and he was only 37. The sudden death of his close and personal friend caused Messiaen make a musical tribute a month later, in which he and his students composed solo instrumental works. The piece was entitled *Le Tombeau de Jean-Pierre Guèzec* and on April 6th of the 8th Annual Royan Festival in Royan, France, Daniel Bourgue (principal horn of the Paris Opera Orchestra) performed the solo work.⁸ This was the origin of the horn solo for “Appel Interstellaire,” and it was not until Alice Tully asked Messiaen for a new commission to celebrate the American Bicentennial in 1976 that he decided to re-incorporate the horn solo into *Des Canyons*.

He quickly began researching ideas on a work honoring America. He stumbled upon a book in his library consisting of the top ten wonders of the world. Within it was Utah’s Bryce Canyon, and he quickly declared it “The most beautiful place in all of the United States.” He arrived at Bryce Canyon in May of 1972 and quickly began to record and write down on manuscript paper all of the birdsongs he could hear. On November 20th, 1974, the piece was premiered in Alice Tully Hall in New York City by Musica Aeterna.⁹

The piece has twelve movements, displaying everything from the sands of a

⁸ Peter Hill and Nigel Simeone, *Messiaen* (New Haven: Yale University Press, 2005), 286-287.

⁹ Richard Steinitz, “Des canyons aux étoiles...” in *The Messiaen Companion*, ed. Peter Hill (Portland: Amadeus Press, 1995), 470.

desert, to the birds flying overhead, to the endless expanse of time and space. *Des Canyons* was centrally created around “Appel Interstellaire” through clever partitioning of the three main sections. Part I of *Des Canyons* is movements one through five. Six through seven constitute part II, and Part III is movements eight through twelve. It is important to understand that *Des Canyons* represents the journey of the human spirit from the desert (part I) up into the heavens of Zion (last movement). Part II contains the horn solo, and its purpose is to transition into the seventh movement of “Bryce Canyon.” “Appel Interstellaire,” in my view, represents the anguish of man’s inner reflection trying to grasp his own mortality. God’s response is utter silence, and the call and response of man’s aggravation is the futility of grasping his own mortality. In the next section, I will explain on how “Appel Interstellaire” is the microcosm within the macrocosm that is *Des Canyons*, both in structure and in philosophical outlook.

Performing “Appel Interstellaire”

Understanding all of Messiaen's intentions is a monumental task, and the use of some methods of traditional theory are not applicable to his ideas of color. His *Turangalîla-Symphonie*, *Méditations*, and *Saint François d'Assise* have received the most scholarly attention, but there is a lack of analysis for *Des Canyons aux étoiles* . . . as a whole. Richard Steinitz provides an excellent overview of *Des canyons* within *The Messiaen Companion* (edited by Peter Hill), but writes with elaborate grandeur of what Messiaen could have intended, as opposed to concrete analysis. Such grievances are forgivable given the nature of Messiaen's philosophical ideology and his written treatises concerning compositional technique. However, my goal is to give the most accurate commentary about “Appel Interstellaire” for future horn soloists.

The opening page of the sixth movement contains the text of two psalm verses. "C'est Lui qui guérit les coeurs brisés, et soigne leurs blessures; c'est Lui qui sait le nombre des étoiles, appelant chacune par son nom." (Psalm, 146, v. 3 et 4). The English translation is as follows: It is He who heals the brokenhearted, and heal their wounds; it is He who knows the number of stars, calling each by name." Messiaen is using this psalm in reverence of God. More importantly, this depiction of God is sought after in the reflection of a silenced mind. This is created during long periods of silence within the piece. This, paired together with the next text, represents the anguish of man confronted

with his own mortality: “Ô terre, ne couvre pas mon sang, et que mon cri ne trouve pas ou se cacher!...” (livre de Job, ch. 16, v. 18). This verse from the book of Job is roughly translated, "O earth, do not cover my blood, and let my cry not be hidden!" (Book of Job, ch. 16, v. 18).

A serious artist should contemplate these texts while preparing this piece. The horn soloist represents humanity undergoing the latter stages of grief. Various parts of the solo conjure the emotional torrent of anger, shouting into the heavens. Others parts depict a sense of mockery. Messiaen takes this a step further, and uses sounds created through extended technique to represent the futility of man's search for meaning in death. In example 1, note that the bar marked *long* is intended to be of undetermined duration compared to the measures directly preceding them. The piece as a whole is divided into three unequal parts; each part ending with an extended horn call technique (shown later in example 5). There are a total of eight sections, each marked by a long measure, amongst the three parts. Part two contains the smallest number of sections, but it is the crux of bridging the journey of the soul of man from beginning to end.

Example 1: First *long* and horn call of “Appel Interstellaire,” mm 1-3.



“Appel Interstellaire” horn solo was created before the overall construction of *Des Canyons* and we can make a correlation of how “Appel Interstellaire” is the structured microcosm within the macrocosm of *Des Canyons*. Both use Part II as the

central thematic material and Part II has the least amount of sections (or movements). Although the number of sections compared to the number of movements is not exact, there is still strong evidence to support my claim. For clarification, silent bars with only a standard fermata indicate a brief pause; they are not stylistically considered as the *long* silences of the mind.¹⁰ Example 2 helps visualize the similarities in construction.

Example 2: Table of similar structural divisions between “Appel Interstellaire” and *Des Canyons aux étoiles* . . .

<i>Des Canyons aux étoiles</i> . . .		“Appel Interstellaire”	
Part I	Movements 1 through 5	Part I	<i>long</i> sections 1 - 3
Part II	Movements 6 through 7	Part II	<i>long</i> sections 4 - 5
Part III	Movements 8 through 12	Part III	<i>long</i> sections 6 - 8

At the first section, we have the initial call, broken by an eighth rest. Messiaen is rather generous with accents and tenuto markings, and the section must be played with gusto. The forward momentum propels the soloist into landing on that last B natural. This sonority should be allowed to ring in a rather resonant hall, and the second-to-last note is typically played rhythmically out of time. The written E is slightly more weighted and played with a longer duration than depicted in the score; perhaps used as a 'trampoline of breath' for the upper B natural. Also, looking at the E natural in the first and second sections, one can see how the harmonies seem to pivot around that E tonal center. The performer should take note of the extensive tritone intervallic leaps in this

¹⁰ Olivier Messiaen. *Des Canyons aux étoiles*. (Paris: Alphonse Leduc, 1978), 135.

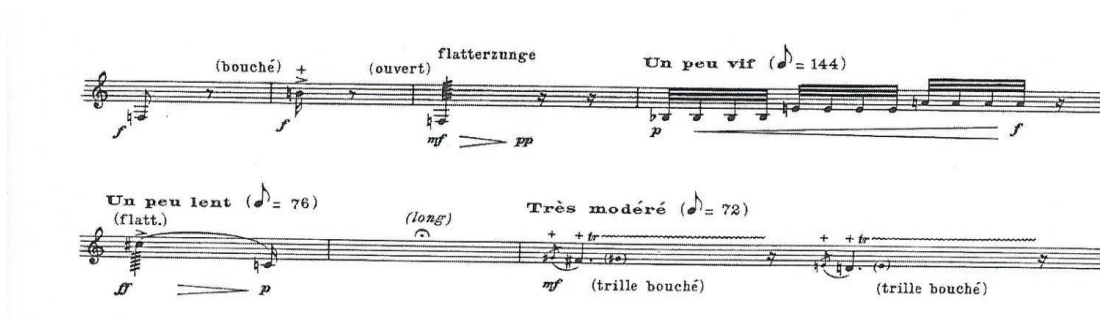
piece. It is easier to play on the Bb side of a double horn for much of this piece.

In the second *long* within example 3, we find three short forte bursts preceding an upward abrasive gesture of anger again. At first glance, the eighths might be interpreted as short, but resonate through the eighth rest after them. Played slightly out of time, the performer should play in a mocking way of frustration. The stopped B natural should be played with the first valve on F horn. As many horn players know, stopping the horn raises the pitch by one semitone, so we must finger a B flat for this intended pitch. F horn fingerings typically work the best for the stopped upper register.

Now the flutter-tongue can be a difficult technique to master. The player essentially makes use of the Spanish R, or "rolling" the tongue. The effect should vibrate further in the mouth, and not in the back of the mouth. Make sure to properly decrescendo to a niente on this pitch. Now Messiaen writes *Un peu vif*, which means a little bright. The ascension of this passage is the anger rising towards the heavens, so make sure to have a nice evenly paced (but fast!) double tongue. The last flutter-tongued C sharp before the end of the 2nd *long* period acts as a inevitable sigh, or the folly of man. The duration of the 2nd *long* should be longer than the first as the second in that the sequence leads into a different color contrast. You should be able to count to five or seven seconds before the silence ends.¹¹

¹¹ Ibid.

Example 3, Second *long* and response of “Appel Interstellaire,” mm 4-9.



As we enter the 3rd *long* passage, Messiaen writes *Tres modéré*, which means very moderate, over two stopped trills. The player should start rather slow and build up to a comfortable momentum of the trill. The trills should be evenly spaced and distributed over that full bar. The first trill should be played trigger three, while the next trill should be played just first valve on the F side. These trills act as a foreground for the arrival of something new.

Next Messiaen introduces his first birdsong within this movement; shown in example 4. Above he writes “Hoamy, ou Grive-geai de Pékin,” which roughly translates to the Blue Thrush Jay. Its call has some large intervallic leaps and acts in sequence until we arrive at the high E natural. Robert Sherlaw Johnson outlines four basic categories for Messiaen’s birdsong:

- I. ‘calls’ (as distinct from songs), usually dissonant and either (a) short and mostly repetitive, or (b) longer and varied
- II. short repetitive song patterns
- III. varied song patterns, (a) melodic in style, often with tonal implications (e.g. blackbird) or (b) more declamatory in style (e.g. nightingale, song thrush)
- IV. long streams of rapid ‘chattering’ song which may be broken into shorter phrases and either (a) gravitating strongly towards a structural pitch center or centers roughly equivalent to a modal dominant), or (b) with no pronounced pitch center

The requirements of form demanded by recalls and contrasts of musical ideals are

fulfilled by means of similarities and contrasts between these various types¹²

Based on Johnson's categorization, I would classify this first birdsong as call I, type (a). I believe Messiaen is using this call from nature to emphatically displace the anger of man. Messiaen thought of nature as the purest form of the divine, and man riddled with sin. How strange is it now that we find the timbre of the French horn projecting this once pure birdsong into the darkness of empty space? It is important when playing this passage to set up one's embouchure for the lower D flat. The higher tessitura of the horn's range will easily project; it is the lower range that is often muddy if poorly executed. The performer often has to accentuate the lower D flat as this resonance holds the chord above it. Right before the end of the third *long*, we get our first extended technique.

Messiaen was fond of experimenting with the horn and its various techniques. One experiment came forth whose sound is like that of an eerie howling wolf in the twilight of dawn.¹³ Above, he writes "son détimbré, irréel, avec des oscillations de hauteur," which loosely translates to "your timbre should be unreal, with oscillations in height." Underneath, he writes "lever ou baisser à moitié, alternativement, les 3 pistons ou les 3 palettes." This directly translates to "raise or lower half, alternatively, 3 pistons or 3 pallets." The player should prepare by finding the G flat with all three valves depressed half way. In performance, it is key to take the time to lock in this half-valve color before continuing on with the oscillations. Now, Messiaen intended for the player to create the oscillations with their embouchure and air support; or to rapidly move the

¹² Sherlaw Robert Johnson, "Birdsong," in *The Messiaen Companion*. ed. Peter Hill (Portland, Oregon: Amadeus Press: 1995), 250.

¹³ Peter Hill and Nigel Simeone, *Messiaen*, 285.

valves in and out of half-valved sound. Movement of the valves can be clunky, and so most professional renditions of this piece are done with the embouchure.¹⁴

Example 5, third *long* and first birdsong of “Appel Interstellaire,” mm 10-17. End of first half-valved call, or Part I.

The image displays three staves of musical notation for the piece "Appel Interstellaire" by Olivier Messiaen. The first staff is marked "Un peu lent (flatt.) (♩ = 76)" and "Très modéré (♩ = 72)". It includes dynamics like *ff* and *p*, and a "long" note. The second staff is marked "Un peu vif (ouvert.) (♩ = 112)" and "Modéré (♩ = 100)". It includes dynamics like *f* and *ff*. The third staff is marked "Très lent (♩ = 44)" and includes dynamics like *ppp* and *pp*. It also includes a "long" note and a description: "(son détimbré, irréel, avec des oscillations de hauteur)".

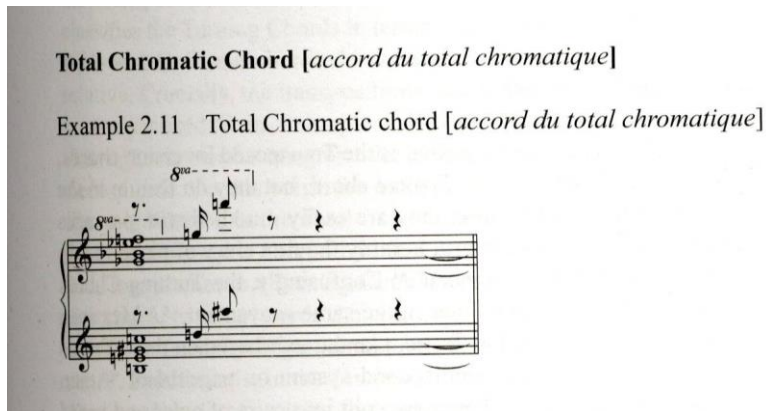
It is important to note a few more things before we go on to the fourth *long* section. If you take all of the pitches from the first *long* to the third *long*, you will find all of twelve chromatic notes, except for E flat and G natural. Messiaen would often express E major and G sharp (its third) rather prominently amongst thick chromatic textures in what he called the total chromatic chord. Messiaen explains the chord by stating that “It contains, first of all, a second inversion of E major.” As the chord progresses up to the right hand, it “has a first inversion E-flat minor chord.” He continues explaining how “the entire effect of the chord draws upon the joyous strength of the major third, G#, and it is this that should be heard above all.”¹⁵ To Messiaen, E major is the ultimate key center for Mother Nature. The lack of E flat and G natural further explains my point, as these

¹⁴ Ibid., 296.

¹⁵ Ibid., 23.

pitches would deter our ear outside of the natural harmonics of E major. Christopher Dingle, in *Messiaen's Final Works*, shows us how he would displace the total chromatic chord between two hands, see example 6.¹⁶

Example 6, the Total Chromatic Chord displaced between two hands. It contains a prevalent E-major tonality. Olivier Messiaen writes the beginning calls of “Appel Interstellaire” around this structure.



Messiaen also decided to use some of his ‘langage’ communicable within this first half-valved section. Shenton explains how Messiaen elaborately develops the concept of a new language through a form of cryptography.¹⁷ The only primary source of information about the ‘langage’ is in Messiaen's preface to *Méditations*.¹⁸ Example 7 is an example of how he would ascribe the alphabet to specific pitches and durations.

¹⁶ Christopher Dingle, *Messiaen's Final Works* (London: Ashgate: 2013), 23.

¹⁷ Shenton, “The Unspoken Word,” 27.

¹⁸ *Ibid.*, 91.

Example 7, How specific pitches and durations are derived from 'langage' communicable.

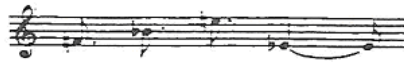


Messiaen could have just translated each text letter to music using this musical cipher, but he decided to add two more components in the creation of his new musical 'langage.' The second component was to create some grammatical concepts, which are identified by certain musical phrases. These phrases are represented on an older Latin-based case system, and the phrases stand for verbs. Example 8 shows how the musical phrases can stand for the accusative case or the dative case and the verb to be.¹⁹ Referring back to the third *long* underneath the word *modéré*, you will see a striking resemblance of this horn call with the accusative and dative case mentioned in example 5.

¹⁹ Ibid., 43.

Example 8, the accusative or dative and verb “to be” from ‘langage’ communicable. Messiaen makes use of both of these forms within “Appel Interstellaire.”

A: Accusative or dative case



B: The verb être

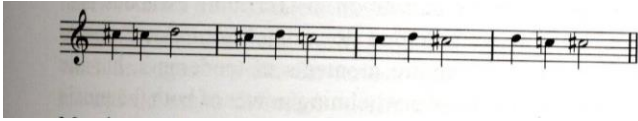


Messiaen makes more use of the accusative/dative, and the verb “to be” in the upcoming second half-valved section of the piece. This is just a tiny part of the immense complexity Messiaen has created. Even more interesting is how the partitions of this piece are similar to the configuration of *Des Canyons* as a whole. Referring back to the chart in example 2, the half-valved extended technique calls represent the I, II, and III part structure of “Appel Interstellaire,” and the *longs* represent separate calls or movements. This is how Messiaen segregates the parts of “Appel Interstellaire” and may have used this template to fashion *Des Canyons*.

Moving to the beginning of part II, or the fourth *long* section, Messiaen introduces a new style of his compositional language. Similar to his total chromatic chord, he makes use of what he called “Returning Chromaticism,” as seen in example 9. Messiaen experiments with neighbor-tone chromatic harmonies.²⁰

²⁰ Ibid., 23.

<p>Example 9, Returning Chromaticism. This sonority is used within “Appel Interstellaire” on multiple occasions.</p>
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In example 10, the opening figure represents Returning Chromaticism because of its neighbor tones juxtaposed around common tones but are separated by a half step. In relation to Messiaen's key of Mother Nature, notice how he purposefully clutters the E natural with the E-flat neighbor tones. This is to suggest that the Part II of "Appel Interstellaire" is becoming darker and further from nature's divinity in comparison to Part I. The performer should take time on this passage, as it acts like an inquiry unsure of itself. The opening theme does repeat, and it is important to vary the sequence as not to dull the audience. The grace notes should be played quickly, but without losing the core tone of the pitch. Before the end of the fourth *long*, Messiaen marks in a series of breath breaks in between the grace-note leaps. Take a little time between each call, and firmly grasp the intervallic distances. The distance of thirteen semitones is hard to place, so this should receive considerable practice time.

Example 10, Fourth *long* and first use of “Returning Chromaticism,” mm 18-27.





In the fifth *long* section, Messiaen makes use of the natural harmonics of the instrument (see example 11). He writes “comme la trompe de chasse. Doigté de cor en Ré,” which means “as the hunting horn, 1st and 2nd valved-fingering.” Instead of using normal fingerings for these pitches, the performer must place fingers one and two down, and play those pitches within that particular harmonic series. The effect makes the G# very gritty and grounded in earth. This section is exceptionally defiant, and calls for answers from God. Take notice that the rhythm between the first call (before the fermata) and the second call (after the fermata) are different. Visually, it is easy to mistakenly play these calls the same. After the third fermata, the player should take about a half a second to settle the low D before ascending up the glissando rip. This is the first time in the piece we have a triple forte, and it should musically be the highest climax thus far. Although there is only an eighth rest separating this from the next bird call, take one second to allow the dissipation of the upper D in the gliss.

Next we have the Troglodyte des canyons (Idaho, Montana) wood thrush call. The player must make sure to establish a strong air column for the tenuto chromatic stepwise descent, and gradually (but then, quickly) *accelerando* forward until you *rallentando* back to sixteenth equals fifty-four. Recalling Robert Sherlaw Johnson and his categorizations, this call is III (b) as it is declamatory in nature. This birdcall is the response humanity is looking for, but receives it in confusion, as it sounds mocking. A third attempt rises rather poorly and answers with a stopped horn echo, as if the canyon is

In part III, the final section of “Appel Interstellaire” returns a familiar theme from part I, but is played out of order. It is as if humanity flips the questions backwards, reflecting on the questions themselves, and not on the answers. Four bars before the end of the sixth *long*, the thematic material changes slightly, but only in pitch, not in rhythm. Right before the end of the sixth *long* (see example 12), Messiaen makes use of another ‘langage’ communicable technique, the verb “to be”. It clearly exhibits the whole step wise descent, followed by a leap motion. The difference between example 12 and example 8 is the duration of each pitch, and the fact that 12 is slurred. The melodic contour remains the same however, and should be considered a fine example of ‘langage’ communicable.

Example 12, part of sixth *long* and example of “verb to be,” mm 54-55.



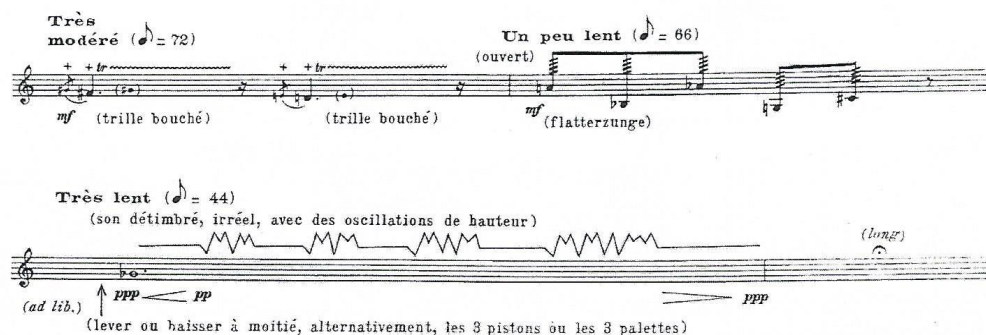
The seventh *long* enters on a high E-flat piano and descends madly towards a lower B-flat, see example 13. Players will find it hard to not overplay the higher tessitura E flat as it requires fast air to speak properly. There are no breaks now, this is the final push towards salvation from madness. The Blue Thrush Jay enters again, defiantly thrusting up towards the high E flat and F natural. Still no stop, the momentum perpetuates forward. All that is left is the original theme that violently shoots up towards the high E natural. This particular *long* should be one of the longest held silences, as this is basically the defeat of logic. Man has tried to expand his knowledge of creation, but is left only with his fractured morality. His mortality is the last door yet unopened.

Example 13, the seventh *long* starting with another Blue Thrush Jay call, mm 56-63.



In the eighth and final *long* section, the stopped trills return with an eerie addition of fluttered tongue. This last whimper of defeat succumbs into the eerie ghostly howl of the last extended technique oscillations, see example 14.

Example 14, the eighth and final *long*, end of part III and conclusion to “Appel Interstellaire,” mm 64-67.



In conclusion, “Appel Interstellaire” is the pivotal sixth movement that links the unawakened soul of the desert opening in *Des Canyons* to the central work of seventh movement “Bryce Canyon.” It is architecturally structured as a microcosm within the macrocosm that is *Des Canyons*. This structure is not easily heard, but visually can be found in score analysis. Performing this piece as solo repertoire must incorporate the visualizations of what Messiaen originally intended within *Des Canyons*. The

incorporation of ‘langage’ communicable, birdsongs, and natural harmonics make the technical passages incredibly difficult, even for the most professional of players. It is riddled with tritones and other non-diatonic leaps that will challenge anyone who takes on this piece. I hope in some way that I honor Messiaen’s legacy by incorporating his conceptualized wishes for this significant horn solo.

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